ABSTRACT

Data communication has been a new communication's need. The purpose of WiFi is to fulfil the need of data communication. The use of GSM indoor networking is a solution to make internet connection in a building. The effect of using GSM networking in a building is to reduce the number of Access Point.

The planning is done at the side of BTS by adding WLAN Booster, Multi Combiner, and Access Point. The planning done by calculating the capacity of customer, network configuration, and evaluation the result of the planning.

Some step would be done in process of planning are estimation of number Accses Point required in commitment area base on the number of customer and spesification of instrument which is used by operator. And also would be done planning the number of antena needed,radius coverage of each antenna and optimal position of indoor antenna.

And then, the result of the planning will be compare to KPI. The RSSI KPI for WiFi must bigger than – 65 dBm and the Rx Level for GSM, 95% from commitment area must bigger than – 80 dBm. So it will get a good GSM – WiFi indoor network with optimal capacity and also can give good signal quality.